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THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

NVLAP
NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.
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REPORT NUMBER: ITL84837

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ISSUE DATE: 06/09/15

PREPARED FOR: BOYD LIGHTING COMPANY

CATALOG NUMBER: E10362

LUMINAIRE: FABRICATED DIFFUSE BRONZE COLORED METAL TOP AND 4 VERTICAL POSTS WITH BOTTOM HOUSING AND 2 DISTINCT OPTICAL COMPARTMENTS, FORWARD OPTICAL COMPARTMENT CONSISTS OF: FLAT GLASS MIRROR REAR REFLECTOR, 9 LEDS IN BOTTOM HOUSING, FABRICATED WHITE PAINTED METAL TOP REFLECTOR AND LENS RETAINING BRACKETS, TRANSLUCENT WHITE FLAT GLASS LENS OVER LEDS, CLEAR FLAT GLASS LENS ON FRONT AND BOTH SIDES. REAR OPTICAL COMPARTMENT CONSISTS OF: FABRICATED WHITE PAINTED METAL REAR MOUNTING PLATE, FORMED METAL HEAT SINK MOUNTING BRACKET, CAST METAL HEAT SINK, ONE WHITE CIRCUIT BOARD WITH 3 LEDS, CLEAR FLAT GLASS LENS WITH TRANSLUCENT WHITE FINISHED INTERIOR. EXACT INTERIOR PROPERTIES OF FORWARD OPTICAL COMPARTMENT UNKNOWN AS GLASS LENS IS SEALED IN PLACE.

LAMPS: TWELVE WHITE LIGHT EMITTING DIODES (LEDs) EACH WITH CLEAR HEMISPHERICAL INTEGRAL LENS, 3 LEDS VERTICAL BASE-UP POSITION, 9 LEDS VERTICAL BASE-DOWN POSITION.

INPUT ELECTRICAL: 120.0 VOLTS, 26.3 WATTS, 0.222 AMPS

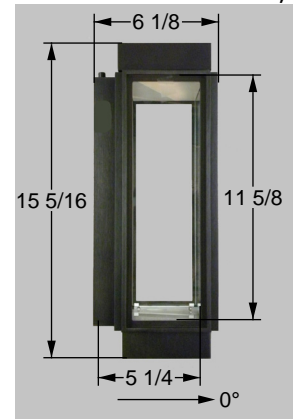
MOUNTING: WALL

LED DRIVER: HIGH PERFECTION TECH. LP1040-12

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE DRIVER. LED INFORMATION PROVIDED BY CLIENT.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET



CANDELA DISTRIBUTION

	0.0	45.0	90.0	135.0	180.0
0	18	18	18	18	18
5	19	19	19	18	18
15	22	22	22	18	17
25	19	23	25	19	16
35	19	17	24	18	14
45	17	13	21	15	12
55	15	11	17	12	9
65	11	8	12	8	6
75	6	5	6	4	3
85	2	2	1	1	0
90	0	1	0	0	0
95	3	2	1	1	0
105	34	27	19	4	0
115	76	57	41	10	0
125	114	84	60	15	0
135	141	106	76	20	0
145	156	114	82	26	0
155	107	86	78	23	0
165	57	33	29	9	0
175	3	1	1	0	0
180	0	0	0	0	0

FLUX

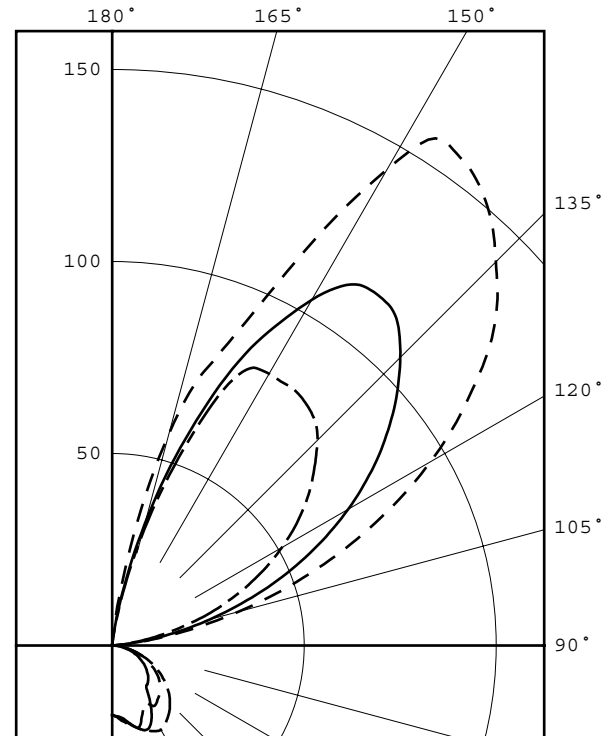
2
6
10
12
12
11
8
5
1
3
17
35
47
51
45
27
8
0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	17	5.7
0- 40	29	9.7
0- 60	52	17.5
0- 90	67	22.4
90-120	54	18.2
90-130	101	33.9
90-150	197	66.0
90-180	232	77.6
0-180	299	100.0

EFFICACY = 11.4 lm/W

CIE TYPE - SEMI-INDIRECT



LEGEND:

0-deg ---
45-deg ---
90-deg ---

Checked M KLOPF
Approved N WHITE
Lighting Engineer



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LUMINANCE DATA IN CANDELA/SQ M				
ANGLE	AVERAGE	AVERAGE	AVERAGE	
IN DEG	0-DEG	45-DEG	90-DEG	
45	843.	828.	2054.	
55	889.	853.	2046.	
65	874.	850.	1950.	
75	830.	839.	1716.	
85	752.	969.	1356.	



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CANDELA DISTRIBUTION

LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	18	18	18	18	18	18	18	18	18
5.0	19	19	19	19	19	18	18	18	18
10.0	20	20	20	20	20	19	18	17	17
15.0	22	22	22	22	22	20	18	17	17
20.0	22	22	23	23	23	21	19	17	17
25.0	19	19	23	24	25	22	19	17	16
30.0	17	16	21	25	25	22	19	16	15
35.0	19	17	17	24	24	22	18	15	14
40.0	18	16	14	21	23	20	16	14	13
45.0	17	15	13	17	21	19	15	13	12
50.0	16	14	12	13	19	17	13	11	10
55.0	15	13	11	9	17	15	12	10	9
60.0	13	11	10	7	14	13	10	8	8
65.0	11	9	8	6	12	10	8	7	6
70.0	8	7	6	5	9	8	6	5	4
75.0	6	5	5	4	6	5	4	3	3
80.0	4	3	3	2	4	3	2	2	1
85.0	2	2	2	1	1	1	1	0	0
90.0	0	0	1	0	0	0	0	0	0
95.0	3	3	2	2	1	1	1	0	0
100.0	15	14	13	9	9	5	2	1	0
105.0	34	30	27	19	19	12	4	1	0
110.0	55	48	42	30	30	21	7	1	0
115.0	76	65	57	40	41	29	10	2	0
120.0	96	83	71	50	51	36	13	2	0
125.0	114	99	84	59	60	43	15	3	0
130.0	130	113	96	67	68	49	18	3	0
135.0	141	124	106	73	76	55	20	4	0
140.0	151	134	114	77	80	60	23	4	0
145.0	156	140	114	78	82	64	26	3	0
150.0	143	122	104	77	82	66	26	3	0
155.0	107	94	86	68	78	62	23	2	0
160.0	80	74	60	47	55	44	17	1	0
165.0	57	48	33	24	29	23	9	0	0
170.0	23	19	10	7	9	7	2	0	0
175.0	3	2	1	0	1	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	0
5- 10	1
10- 15	2
15- 20	3
20- 25	4
25- 30	5
30- 35	6
35- 40	6
40- 45	6
45- 50	6
50- 55	6
55- 60	5
60- 65	5
65- 70	4
70- 75	3
75- 80	2
80- 85	1
85- 90	0
90- 95	0
95-100	2
100-105	6
105-110	11
110-115	15
115-120	19
120-125	22
125-130	24
130-135	25
135-140	25
140-145	24
145-150	21
150-155	16
155-160	11
160-165	6
165-170	2
170-175	0
175-180	0

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	2
0- 20	8
0- 30	17
0- 40	29
0- 50	41
0- 60	52
0- 70	61
0- 80	65
0- 90	67
0-100	69
0-110	87
0-120	121
0-130	168
0-140	219
0-150	264
0-160	291
0-170	298
0-180	299



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	10	11	01	10	11	01	10	11	01	10	11	01	10	11	01	10	11	01
1	91	87	84	80	81	78	74	72	59	57	55	42	41	40	27	26	26	19
2	83	76	70	65	73	68	63	58	52	48	46	37	35	33	24	22	21	15
3	76	67	60	54	67	59	53	49	45	41	38	33	30	28	21	19	18	13
4	69	59	51	45	61	52	46	41	40	36	32	29	26	24	18	17	15	11
5	63	52	44	39	56	46	40	35	36	31	27	26	23	20	16	15	13	9
6	58	46	39	33	51	41	35	30	32	27	24	23	20	18	15	13	12	8
7	53	42	34	29	47	37	31	26	29	24	21	21	18	15	13	12	10	7
8	49	38	30	25	44	34	27	23	26	21	18	19	16	14	12	10	9	6
9	46	34	27	22	41	31	24	20	24	19	16	17	14	12	11	9	8	6
10	43	31	24	20	38	28	22	18	22	17	14	16	13	11	10	9	7	5

ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS TEST SAMPLE.

NOTE: THE ZONAL CAVITY CALCULATION TECHNIQUE IS ACCURATE WHEN LUMINAIRES WITH SYMMETRIC CANDELA DISTRIBUTIONS ARE EMPLOYED AND WHEN THE LUMINAIRES ARE LOCATED SYMMETRICALLY THROUGHOUT THE ROOM. THIS UNIT HAS SPECIAL CHARACTERISTICS AND THEREFORE THESE COEFFICIENTS SHOULD BE USED WITH CAUTION.



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